Department of Environmental Management

Spotlight on Environmental Protection

Did you know?

When ***Unhealthy for Sensitive Groups*** or ***Unhealthy*** levels are predicted, RI DEM issues an Air Quality Alert, urging Rhode Islanders to take steps to protect their health and to limit driving and other activities that contribute to high air pollution levels. For the Summer 2014, RIPTA buses are again free on Air Quality Alert days.

Air Quality Index

What is the Air Quality Index (AQI)?

The AQI is a color-coded index that provides air quality information to the public, including daily pollutant levels, the health effects of dirty air, and ways to protect your health when pollutants levels are high. The AQI is calculated for five air pollutants: ground level ozone, fine particles, carbon monoxide, nitrogen dioxide and sulfur dioxide. The US Environmental Protection Agency (EPA) has established national air quality standards for those pollutants to protect public health.

How does the AQI work?

AQI levels run from 0 to 500; the higher the AQI value, the higher the air pollution levels and the greater the health concern. When the AQI is 50 or lower, the air quality is ***Good*** and is unlikely to affect your health. Very sensitive individuals may experience respiratory effects when the AQI is between 51 and 100, the ***Moderate*** range. An AQI value of 100 corresponds to the national air quality standard for the pollutant. When AQI values are in the 101 -150 range, the air quality is ***Unhealthy for Sensitive Groups*** like children, older adults, people with respiratory or cardiac conditions, and people who work or exercise outdoors. As the AQI climbs still higher, (AQI of 151 – 200), the air becomes ***Unhealthy*** for more people and potential health effects are more serious.

Air Quality Index for Ozone
(based on 8-hr average concentrations)

Index Values (Conc. Range)	Air Quality Descriptors	Cautionary Statements for Ozone
0 – 50 (0-59 ppb)	Good	**No health impacts are expected when air quality is in this range.**
51 – 100 (60-75 ppb)	Moderate	**Unusually sensitive people should consider limiting prolonged outdoor exertion**
101 – 150 (76-95 ppb)	Unhealthy for Sensitive Groups	**Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion**
151 – 200 (96-115 ppb)	Unhealthy	**Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children should limit prolonged outdoor exertion.**
201 – 300 (116-374 ppb)	Very Unhealthy	**Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.**

Ways to find out more:

Facebook
Like our "Rhode Island DEM Air Quality" page to view daily air quality forecasts.

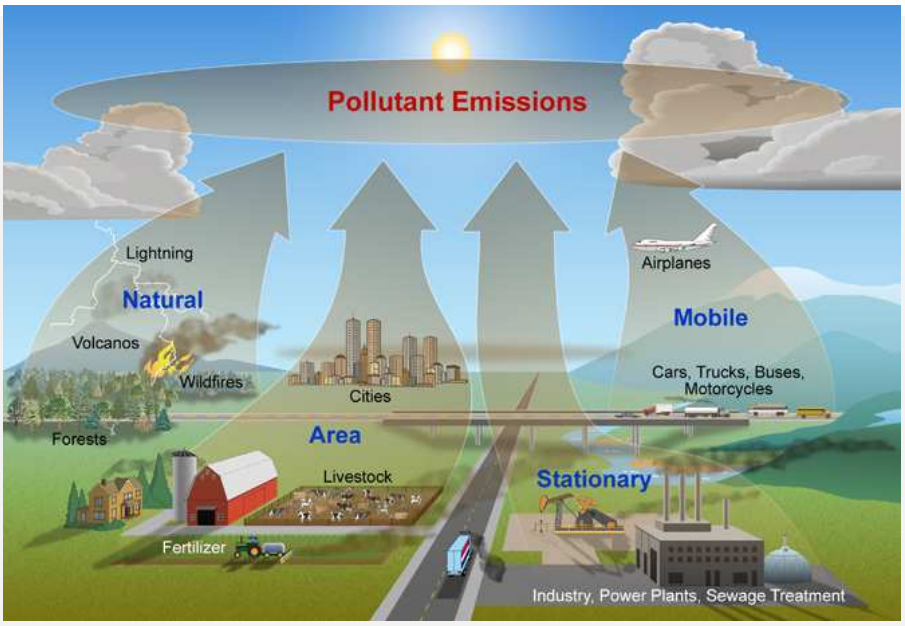
Twitter
Forecasts for Air Quality Alert Days are tweeted at @RhodeIslandDEM.

Media
The Providence Journal's weather page displays AQI levels and forecasts during the summer months.

Website
Visit DEM's website, www.dem.ri.gov/programs/benviron/air/pm.htm, for the AQI forecast, as well as other information about air pollutants.

Air pollutant levels measured in Rhode Island are transmitted to the EPA's AIRNow website, www.airnow.gov, where you can find maps of the daily AQI forecast as well as real-time AQI levels monitored in Rhode Island and other areas across the US.

E-mail
Sign up for EnviroFlash at www.enviroflash.info to get free alerts about air quality in your area.



How is Rhode Island's AQI calculated?

Rhode Island's AQI is calculated from air pollutant levels measured at monitoring sites throughout the State. RI DEM also predicts the AQI for the following day using air quality models and other pertinent information. In Rhode Island, levels of all of the AQI pollutants except for ozone and fine particles are almost always in the ***Good*** category. Fine particle levels are generally ***Good*** or ***Moderate***, but higher levels of that pollutant are occasionally recorded, typically on days during the heating season when the air is stagnant. The ozone AQI frequently rises to the ***Moderate*** and, on some days, to the ***Unhealthy for Sensitive Groups*** or ***Unhealthy*** categories during the hot summer months. Although ozone tends to be highest on warm summer days, heat and sunshine are not the only important ingredients for ozone formation; ozone levels in Rhode Island are highly affected by pollutant emissions in upwind states, particularly in the densely populated areas to our west and south.